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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,181	01/23/2004	Sachin Navin Chheda	200314086-1	7860

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EXAMINER

VIDAYATHIL, TRESA V

ART UNIT PAPER NUMBER

3746

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/764,181	<b>Applicant(s)</b> CHHEDA ET AL.	
	<b>Examiner</b> Tresa V. Vidayathil	<b>Art Unit</b> 3746	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/09/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because Power Control Subsystem 203 is misspelled in Figure 2. "Sybsystem" should be changed to "Subsystem." Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The applicant should revise his abstract to be a summary of his entire invention, including the aspects of his invention that make it new in the art. See 37 CFR 1.72.

3. The disclosure is objected to because of the following informalities:
- a. Change "replace" to "replaced" (Page 8, l. 23).
  - b. As indicated in Figure 4, add text describing how the process returns to 430 (Page 11, l. 21).

Appropriate correction is required.

#### ***Claim Objections***

4. Claim 16 objected to because of the following informalities: it is not clear as to which antecedent the term "said" at the end of Line 2 refers to. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 11 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 11 recites the limitation "said redundant fan cooling system" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 17 recites the limitation "said second fan" in the last two lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1- 9, 11-16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cipolla 6,791,836 in view of Kimura 5,414,591.

Cipolla discloses: 1) first fan 104 coupled with first motor 103, 2) a second fan 104 coupled with a second motor 103, 3) a control system (148, 136, 116, 22, 114, and 120) coupled with both motors 103 and 104, 4) first and second motors of variable speed (col. 4, ll. 59-64), 5) a motor performance monitoring system (116 and 114) determining a performance metric 114 for each motor, 6) first and second tachometers 114 determining the rotational speed of the first and second motors respectively (col. 4, ll. 44-48), 7) a comparator 116 for comparing measured performance metrics of each

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motor with pre-defined parameters (col. 5, ll. 1-12), 8) a power control subsystem 120, 9) a controller 116, and 10) controller 116 is coupled with power control subsystem 120 and generates a command to power control subsystem 120 in response to a signal from the comparator 116 (col., ll. 59-64 and col. 5, ll. 1-12).

However, Cipolla does not teach the following limitations that are taught by Kimura: a heat sink or heat dissipating device 18, a duct system 2 conveying air flow to heat sink 18, first and second current monitoring devices 21 determining the amount of current used by the first and second motors respectively (col. 14, l. 49), operation of plurality of fan motors at a first operating speed (col. 5, ll. 23-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cipolla in view of the above teaching of Kimura in order to improve the cooling efficiency of the system (Kimura, col. 9, ll. 49-53 and col. 10, ll. 65 – col. 11, ll. 1) and detect another operational condition of the fan (col. 15, ll. 23-24).

Regarding the limitations that the first motor and second motor are removably couplable with said fan cooling system and disengaging the first fan motor, making elements of an apparatus separable fails to patentably distinguish this invention over the prior art. (See MPEP § 2144.04.V.B). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the motor removable from the fan cooling system.

Regarding the limitation that the controller causes said power control subsystem to dynamically alter the operating speed of said second fan when said performance metric of said first motor exceeds said pre-defined parameter, Cipolla teaches that

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controller 116 causes power control subsystem 120 to dynamically alter the operating speed of one or more fans based on pre-defined parameters (col. 4, ll. 59-64 and col. 5, ll. 1-12). Kimura teaches that the operating speed of a second fan is altered when the first motor exceeds a performance metric, where the performance metric is current (col. 15, ll. 23 –53). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cipolla in view of Kimura to detect another operational condition of the fan (Kimura, col. 15, ll. 23-24).

12. Claim 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cipolla in view of Kimura as applied in Claims 1, 4, and 11 above, and further in view of Olarig 20030112600.

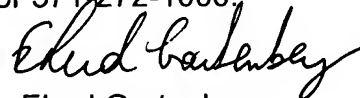
Cipolla in view of Kimura discloses all the limitations substantially as claimed except for the state machine (Page 2, Paragraph 26, ll. 3-5) taught by Olarig. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cipolla in view of Kimura and further in view of Olarig in order to substitute a controller with a state machine (Olarig, Page 2, Paragraphs 23 – 26).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tresa V. Vidayathil whose telephone number is (571) 272-3436. The examiner can normally be reached on 9AM - 7:30PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ehud Gartenberg  
Supervisory Primary Examiner  
Art Unit 3746



Tresa V. Vidayathil

**EHUD GARTENBERG**  
**SUPERVISORY PATENT EXAMINER**